

WHAT IS CLAIMED IS:

1. A method for controlling at least one of vehicular electric systems having a plurality of power sources that supplies power to an onboard electrical load and an onboard battery, comprising:

obtaining information on power generation costs that are costs of generating unit power by the power sources; and

adjusting at least one of a distribution of power supply of the power sources, a receiving power rate of the onboard electrical loads, and a receiving power rate of the onboard battery in such a manner that a consumed power cost is reduced based on the information.

2. The method according to claim 1, further comprising obtaining information on available power supplies from the power sources, wherein the adjusting step is performed based on the information on the power generation costs and the available power supplies from the power sources.

3. The method according to claim 2, further comprising:

controlling the power generation of the power sources based on the distribution of power supply; and

outputting an instruction signal to a device that supplies power to the power sources for controlling an output based on the distribution of power supply.

4. The method according to claim 1, further comprising

determining a distribution of power supply of the power sources to the onboard battery based on the information.

5. The method according to claim 4, wherein the determining step determines the distribution of power supply of the power sources based on the power generation costs so that the power sources that generate power at lower costs supply larger amounts of power.

6. The method according to claim 4, wherein the power sources include an engine of a hybrid vehicle and a regenerative braking system.

7. The method according to claim 6, wherein the regenerative braking system has a higher priority to supply power to the onboard battery for charge.

8. The method according to claim 4, wherein the information includes a difference between the power generation cost of the onboard battery and that of the other power source that supplies power to the onboard battery.

9. The method according to claim 8, wherein the information includes a state of charge of the onboard battery in addition to the difference.

10. The method according to claim 9, wherein the state of

charge of the onboard battery is determined using an amount of power charged in the onboard battery and a variation in the amount.

11. The method according to claim 4, further comprising:
distributing power from the power sources to the electrical loads; and

distributing power remaining in the power sources after the distribution to the electrical loads.

12. The method according to claim 1, further comprising supplying power from the electric system to the other electric system.

13. The method according to claim 1, wherein:
the information includes a power generation cost of power generation by an engine; and

the power generation cost is determined based on engine efficiency at an engine operating point.

14. The method according to claim 13, further comprising correcting the power generation cost based on information on generator efficiency.

15. The method according to claim 1, wherein:
the information includes a power generation cost of power generation by an engine; and

the power generation cost is determined based on an increase in consumed fuel for driving the engine due to the power generation.

16. A method for controlling at least one of vehicular electric systems having a plurality of power sources including an engine-driven generator that supplies power to an onboard electrical load and an onboard battery, comprising:

obtaining information on power generation costs that are costs of generating unit power by the onboard battery charged by the power sources; and

adjusting discharge of the onboard battery that functions as a power source based on the information.

17. The method according to claim 16, further comprising adjusting power generation of the generator based on the information.

18. A method for controlling at least one of vehicular electric systems having a plurality of power sources including an engine-driven generator that supplies power to an onboard electrical load and an onboard battery, comprising:

obtaining information on power generation costs that are costs of generating unit power by the power sources;

storing the information in a table for each of a plurality of energy units, each of which indicates unit energy, as information on power generation costs of charging the

energy units in the onboard battery;

deleting the oldest information from the table when discharging the onboard battery by the unit power; and

determining the power generation cost of the onboard battery based on the information on the power generation cost regarding the energy unit currently stored in the table.

19. The method according to claim 18, further comprising:

determining a cumulative amount of charged and discharged power of the onboard battery is lower than the energy unit; and

storing information on the energy unit if the cumulative amount reaches an amount of power corresponding to the energy unit as information on a most recent energy unit together with the power generation cost of the energy unit.

20. The method according to claim 19, wherein the determining step separately determines the cumulative amount of charged energy of the onboard battery and that of the discharged power of the onboard battery.

21. The method according to claim 20, wherein storing step storing the energy unit in the table as a new energy unit together with the power generation cost during the charge of the battery when the cumulative amount of the charged energy reaches the amount of power corresponding to the energy unit.

22. The method according to claim 20, wherein the deleting step deletes the information on the oldest energy unit when the cumulative amount of the discharged power of the onboard battery (103) reaches the amount of power corresponding to the energy unit.

23. The method according to claim 18, further comprising periodically correcting a number of energy units to match a state of charge of the onboard battery that is separately determined before storing in the table.

24. The method according to claim 23, further comprising deleting the oldest information on the energy unit stored in the table if the number of energy units to be stored is higher than an actual number of energy units determined based on the state of charge of the onboard battery.

25. The method according to claim 23, further comprising storing the most recent energy unit together with information on the power generation cost of the energy unit if the number of energy units to be stored is lower than an actual number of energy units determined based on the state of charge of the onboard battery.

26. The method according to claim 23, wherein the power cost of the onboard battery is determined by an average cost of the energy units stored in the table.